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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/005,129	12/07/2001	Hiroshi Takeuchi	MIT-024-USA-P	8052

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EXAMINER

HO, THOMAS Y

ART UNIT	PAPER NUMBER
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3677

DATE MAILED: 07/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/005,129

Applicant(s)

TAKEUCHI, HIROSHI

Examiner

Thomas Y Ho

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 May 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 27 May 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2. 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

Claims 1-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Where applicant acts as his or her own lexicographer to specifically define a term of a claim contrary to its ordinary meaning, the written description must clearly redefine the claim term and set forth the uncommon definition so as to put one reasonably skilled in the art on notice that the applicant intended to so redefine that claim term. *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999). As to claim 1, the term “perpendicular to the longitudinal axis” is used by the claim to mean “extending in a longitudinal direction”, while the accepted meaning is “transversely to the longitudinal axis.” The term is indefinite because the specification does not clearly redefine the term. In fact, the specification and drawings clearly show that the longitudinal connecting protrusions 21 claimed are generally “parallel” to the longitudinal axis of the bed. Also, this definition of perpendicular is not consistent with the use of the word “perpendicular” in a preceding portion of claim 1 where the bars are said to be disposed “generally perpendicular” to the longitudinal axis of the bed. Claims 2-13 depend from claim 1 and are likewise rejected.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over TORAN
USPN4785487 in view of SHIRAI USPN5377369.

As to **claim 1**, TORAN discloses a bendable bottom member of a bed comprising a plurality of side by side bars 8 bendably connected with each other to allow the whole extent of the connected bars to be curved, said bars being disposed generally perpendicular to the longitudinal axis of the bed, one of every adjacent two of the bars is provided with a plurality of longitudinal connecting protrusions being generally perpendicular to the longitudinal axis of the bed, while a plurality of recesses are formed in adjacent bars for accepting protrusions extending from an adjacent bar, in such a manner that the connecting protrusions of the bars can be inserted into corresponding recesses of an adjacent bar said protrusions having at tips and bases thereof first and second beveled portions, respectively, forming clearances between the protrusions and corresponding recesses to allow the connecting bars to be bent in one direction and disengagement preventing means 35 formed at a tip of some of the connecting protrusions. FIGURE A better shows the cited structures of TORAN and is depicted below. While TORAN discloses side by side bars 8, they fail to show the ability to be shortened and extended; while TORAN discloses disengagement preventing means 35, they fail to show disengagement preventing means comprising hooks formed at a tip of some of the connecting protrusions; while TORAN discloses corresponding accepting recesses, they fail to show corresponding accepting recesses having steps therein adapted to engage the hooks, so that the hooks and steps are engaged with each other when the respective adjacent bars are kept furthest away from each other; as recited in the claims. SHIRAI teaches a bottom structure of a bed similar to that of

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TORAN. In addition, SHIRAI further teaches the ability of the bars 8 to be shortened and extended (Fig.4), disengagement preventing means comprising hooks 11/14 formed at a tip of some of the connecting protrusions 9, and corresponding accepting recesses 13 having steps therein adapted to engage the hooks 11/14, so that the hooks 11/14 and steps are engaged with each other when the respective adjacent bars are kept furthest away from each other (Fig.4). It would have been obvious to one of ordinary skill in the art, having the teachings of TORAN and SHIRAI before him at the time the invention was made, to modify the protrusions and recesses disclosed by TORAN to include the hooks and steps, respectively, of SHIRAI, in order to obtain a bottom bed member having side by side bars that are engaged through projections and recesses wherein the hinge between the bars comprises of hooks on the protrusions and steps on the recesses that engage when the length of the distance between the bars is fully extended. The combination will replace the pin retaining members 35 of TORAN and will modify the ends of the bars 8 of TORAN to have the slotted ends 13 and hook retaining members 9 of SHIRAI. One would have been motivated to make such a combination because the overall length of the bottom could be adjusted in the longitudinal direction, as taught by SHIRAI (Col.4, ln.40-45).

(BLANK SPACE...TEXT CONTINUES AFTER FIGURE A ON NEXT PAGE)

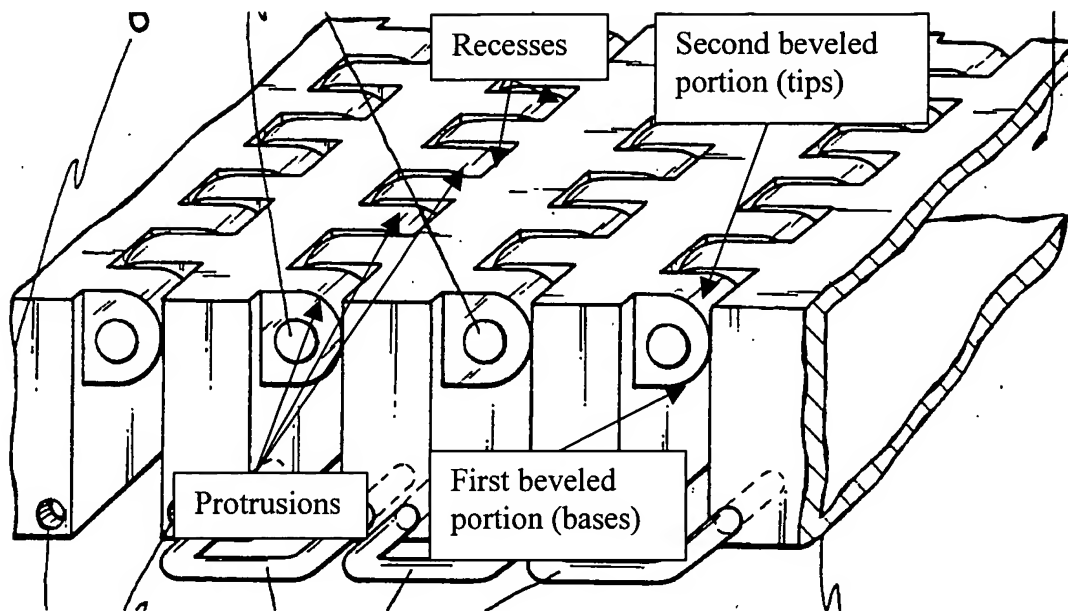


FIGURE A (TORAN)

As to **claim 2**, TORAN discloses a bar 7 (Fig.11) disposed at an end of the bendable bottom member 8/8/... on one side has only accepting recesses.

As to **claim 3**, TORAN discloses first beveled portions are formed on lower sides at the tips of the connecting protrusions while second beveled portions are formed on the upper sides at the bases of protrusions, to sue the bendable bottom member as a bendable portion between the back region and the waist region. See FIGURE A above.

As to **claim 4**, TORAN discloses first beveled portions are formed on the upper sides at tips of connecting protrusions, while second beveled portions are formed on lower sides at the bases of protrusions, to use the bendable bottom member as a bendable portion between the waist region and the leg region. See FIGURE A above, but reverse the labels of first and second beveled portions. Claims 3 and 4 are not interdependent and so the alternative interpretations are valid.

As to **claim 5**, TORAN discloses the second beveled portions at the bases of the connecting protrusions are inclined in adaptation to the desired bending angles with the adjacent bars. See FIGURE A above.

As to **claim 6**, SHIRAI discloses hooks 11 formed at tips of connecting protrusions 9 are provided with the disengagement preventing means 13 while steps (front abutments of 13) to be engaged with the hooks are formed in the corresponding accepting recesses 13, to allow the bottom bed member to change in length as desired. Refer to claim 1 above.

As to **claim 7**, TORAN discloses second beveled portions at bases of connecting protrusions are inclined in adaptation to desired bending angles with adjacent bars.

As to **claim 8**, TORAN discloses second beveled portions at bases of connecting protrusions are inclined in adaptation to desired bending angles with adjacent bars.

As to **claim 9**, TORAN discloses second beveled portions at bases of connecting protrusions are inclined in adaptation to desired bending angles with adjacent bars.

As to **claim 10**, SHIRAI discloses hooks 11/14 at tips of the connecting protrusions 9 are adapted to engage with steps formed in the corresponding accepting recesses 13. Refer to claim 1 above.

As to **claim 11**, SHIRAI discloses hooks 11/14 at tips of the connecting protrusions 9 are adapted to engage with steps formed in the corresponding accepting recesses 13. Refer to claim 1 above.

As to **claim 12**, SHIRAI discloses hooks 11/14 at tips of the connecting protrusions 9 are adapted to engage with steps formed in the corresponding accepting recesses 13. Refer to claim 1 above.

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As to **claim 13**, SHIRAI discloses hooks 11/14 at tips of the connecting protrusions 9 are adapted to engage with steps formed in the corresponding accepting recesses 13. Refer to claim 1 above.

Response to Arguments

Applicant's arguments, see page 7, filed 5/22/03, with respect to previous objections to the specification, IDS, abstract, and drawings have been fully considered and are persuasive. The objections of the aforementioned have been withdrawn in light of corrections submitted in the amendment filed 5/22/03.

Applicant's arguments with respect to claims 1-13 have been considered but are moot in view of the new ground(s) of rejection. The new grounds of rejection were necessitated by changes in the claims submitted in the amendment. For example, the addition of "of a bed" as well as "a plurality of recesses" are some of the new limitations that were considered.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas Y Ho whose telephone number is (703)305-4556. The examiner can normally be reached on M-F 10:00AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J. J Swann can be reached on (703)306-4115. The fax phone numbers for the organization where this application or proceeding is assigned are (703)872-9326 for regular communications and (703)872-9327 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)306-1113.

TYH
July 23, 2003



WILLIAM MILLER
PRIMARY